

Please replace paragraph [0057] with the following amended paragraph:

[0057] If the adsorbed substance is a precursor which must still be converted into the active phase, the material ~~is~~may be thermally treated, possibly under an appropriate gas atmosphere, at the decomposition temperature of the precursor. The reaction conditions are optimized by those skilled in the art on the basis of routine considerations, results from thermal analysis, preferably calorimetry and thermogravimetry, being used.

(16) 3/30/09 Please replace paragraph [0060]⁶⁰ with the following amended paragraph:

[0060] Particles in the size range from 1 nm to 1 μ m ~~are~~ may be applied or produced on the surface through the method according to the present invention. The particles are adsorbed on the surface and anchored securely by the irregularities of the surface to the carrier lying underneath. Due to this secure fixing, the particles made of active material are not able to agglomerate, so that their surface is almost 100% accessible. The inaccessible volume component, which is located in the interior of the particles in typical carrier-bound materials, may thus be reduced to a minimum as a permanent development.

Please replace paragraph [0065] with the following amended paragraph:

[0065] In addition, the size dependence of specific effects ~~is~~ may not only be quantitative, but rather also qualitative in nature, an effect which is known from heterogeneous catalysis as "structural sensitivity." Thus, ultrafine additives usually may not unfold their full potential in polymer matrices, because they are already provided as agglomerates or agglomerate during the mixing process. The attempt to achieve the object of avoiding this set of problems is to transfer the principle of producing heterogeneous catalysts to fillers for polymers. The ultrafine particles are not applied in the mixing process, but rather to larger fillers which are contained in the polymer in any case.

Please insert the following new heading before paragraph [0067]:

BRIEF DESCRIPTION OF THE DRAWINGS

Please replace paragraph [0068] with the following amended paragraph:

[0068] Figure 1 shows the principle of the present invention in comparison with previously known achievements ~~of the object~~.

Please insert the following new heading before paragraph [0070]:

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Please replace paragraph [0071] with the following amended paragraph:

[0071] It may be seen from the left side of Figure 1 that the particles used in the classical approach, such as filler particles (1) 1 and particles made of active phase (2) 2 have a significant, chemically inactive dead volume. This may be significantly reduced by fixing ultrafine particles made of active material (4) 4 on a carrier particle (3) 3. Fillers produced in this way already result in very good mechanical values in polymers, even after heat aging in accordance with DIN 53 508. The thermal treatment necessarily reduces the specific surface area of the carrier, however.

Please replace paragraph [0072] with the following amended paragraph:

[0072] In order to prevent this and achieve an extraordinary stability of polymers regarding heat aging via an increased specific surface area of the filler, the carrier material ~~must~~may be provided with a thermolabile substance according to the method according to the present invention ~~(not shown on the right side of Figure 1)~~. A fissured or fractal surface then results during the thermal treatment, i.e., the specific surface area, and thus the activity of the filler is increased once again. A resistance to heat aging may thus be achieved, which differs significantly once again from that of a carrier-bound, but not surface-modified system.

Please replace paragraph [0072] with the following amended paragraph:

[0073] An embodiment of the method according to the present invention is sketched in Figure 2. A carrier particle (3) 13 is combined with a thermolabile precursor substance. A layer (5) 5 made of the thermolabile precursor substance forms on the surface of carrier particle (3) 13. Through thermal treatment of the coated carrier particle, a layer (6) 6 which has a strongly fissured surface arises through at least partial decomposition of the precursor substance. This is